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ABSTRACT

A developmental model for an empathy-based prosocial motive is presented. The framework of the model is presented in terms of three components of empathy. The first component, empathic affective arousal, is discussed and six involuntary psychological mechanisms which underlie it are described briefly. These mechanisms, in the order in which they appear developmentally, include: reactive newborn cry, conditioning, association, mimicry, symbolic association, and role-taking. The cognitive-transformational component of empathy is discussed next and four levels of empathic response are described that result from the coalescence of empathic affect and the cognitive sense of the other. These levels are: (1) global empathic distress, (2) empathic distress which is experienced with the awareness that another person and not the self is the victim, (3) empathic distress which is experienced with the awareness that other people's feelings are based on their own reaction to events and are independent of self feelings, and (4) empathically aroused affect which can be aroused by the plight of an entire group or class of people. The third component of empathy discussed is the motivational component. Altruistic or prosocial motivation refers to the behavioral disposition of a person experiencing empathic distress to do something to relieve the victim's distress. Socialization experiences which will increase a child's empathic abilities are discussed and relevant research is summarized. The question of whether a motive to help others is a part of human nature is discussed. (JMB)

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Development of Empathy and Altruism

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Recent years have seen intensified research interest in altruism, defined generally as behavior such as helping or sharing that promotes the welfare of others without conscious regard for one's own self interest. Though a lot of research has been done with children, there is little developmental theory. The reason may be the social learning orientation that underlies most of the research, which assumes that altruistic responses are acquired through processes like reinforcement and imitation that remain the same regardless of age.

My interest is altruistic motivation and I have been working on a developmental scheme that depends not on reinforcement or imitation but on the interaction between affective and cognitive processes that change over time (Hoffman, 1975, 1977, In press). I'll now present the most recent version of the scheme and also use it as an organizing framework for the research findings.

The basic concept in the theory is empathy, defined as a vicarious affective response to another person. Though I focus on empathic affect, I view empathy as having three components: affective arousal, cognitive-transformational, and motivational. I'll discuss each of these in turn.

Empathic affect arousal is first of all largely involuntary. Indeed, the research indicates that it is hard for people to avoid empathizing, especially with someone in pain or distress, unless they engage in certain perceptual or cognitive strategies such as looking away from the victim or trying hard to think about other things. The reason why it is hard to avoid empathizing is that very simple, almost primitive psychological mechanisms usually underlie it. I'll describe them briefly, roughly in the order in which they appear developmentally.

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1. Reactive newborn cry. It has long been known that infants cry to the sound of someone else's cry. Recent controlled research has found this occurs even in newborns. Furthermore, the infants do not cry as much to equally loud nonhuman sounds, which suggests there is something especially unpleasant about the sound of the human cry. Finally, this reactive cry is not a simple imitative vocal response lacking an affective component. Rather, it is vigorous, intense, and hard to distinguish from the spontaneous cry of an infant when he is in actual pain. No one knows whether it is innate or learned, but, either way, it seems clear that newborns respond to a cue of distress in others by experiencing distress themselves. The reactive cry must therefore be considered as a possible early precursor of empathy, though not a full empathic response.

2. Conditioning. The second mode of empathic affect arousal is the direct conditioning of empathy that results when one observes distress cues from another person at the same time that one is having a direct experience of distress. The result is that distress cues from others become conditioned stimuli that evoke feelings of distress in the self. Aronfreed demonstrated this kind of empathic conditioning with school children in the laboratory. It often occurs in real life, too, as when the mother's affective state is transferred to the infant through physical handling. For example, if the mother feels anxious or tense her body may stiffen, with the result that the child may also feel distress at the same time. Later on the distress cues from the mother, that is, her facial or verbal expressions that accompanied her distress, can serve as conditioned stimuli that evoke distress in the child even when there is no physical contact between them. Furthermore, through stimulus generalization, similar facial and verbal expressions by other persons may evoke distress feelings in the child.

3. Association. A third more indirect type of empathic conditioning

of empathy was described some time ago by Humphrey (1922). When we observe someone'experiencing an emotion, his facial expression, voice, posture or any other cue that reminds us of past situations in which we experienced that emotion, may evoke a similar emotion in us. (The usual example cited is the boy who sees another child cut himself and cry. The sight of the blood, the sound of the cry, or any other distress cue from the victim that reminds the boy of his own past pain experiences may evoke an empathic distress response.) This arousal mode does not depend on physical handling nor does it require the co-occurrence of actual distress in self and distress cues from others. The only requirement is that the observer has had past experiences of pain or discomfort that have something in common with the distress cues from the victim. It thus provides the basis for a variety of distress experiences with which children, and adults as well, may empathize.

4. Mimicry. The fourth mode was proposed by Lipps who viewed empathy as a isomorphic, unlearned response to another person's expression of emotion. There are two steps: the observer first automatically imitates the other with slight movements in facial expression and posture ("motor mimicry"). This then creates kinesthetic cues within the observer that contribute (through afferent feedback) to the observer's understanding and feeling the same emotion. This conception of empathy has been neglected but there is recent research, which there is no time to present here, suggesting its plausibility.

5. Symbolic Association. The fifth mode, like the third, is based on the association between victim's distress cues and observer's past distress. In this case, though, the victim's distress cues evoke empathic distress not because of their physical or expressive properties but because

they symbolically indicate the victim's feelings. For example, one can respond empathically to someone by reading a letter from him, or hearing someone else describe what has happened to him. This is obviously a relatively advanced mode of arousal since it requires language. It is still largely involuntary, however, and the language serves mainly as a mediator between the victim's distress cues and the observer's empathic response.

6. Role-taking. The sixth mode is different in that it involves a deliberate cognitive act of imagining oneself in another's place. More specifically, the research suggests that empathic affect is especially likely to be generated when we try to imagine how we would feel if the stimuli impinging on the other person were impinging on us; rather than, for example, trying to imagine directly how the other person feels.

These six modes of empathic arousal do not form a stage sequence in the sense of each encompassing and replacing the preceeding. The first mode typically drops out after infancy, owing to controls against crying. The last mode, being deliberate, is probably infrequent----used, for example, at times mainly by some parents and therapists. The intermediate four modes, however, which enter in at different points in development, may continue to operate through life.

That's the empathic arousal conponent. Now for the cognitive-transformational component of empathy. Though empathy is usually aroused by the simple involuntary mechanisms I described, the subjective experience of empathy is rather complex. Thus, regardless of the arousal mechanism, the mature empathizer knows, among other things, that his arousal is due to a stimulus event impinging on someone else and he has some idea of what the other person is feeling. Young children who lack the distinction between self and other may be empathically aroused without these cognitions. In other

words, how people experience empathy depends on the level at which they cognize others. This suggests the development of empathic distress must correspond at least partly to the development of a cognitive sense of the other. The cognitive sense of the other undergoes dramatic changes developmentally. Briefly, the research suggests that for most of the first year children apparently experience a fusion of self and other. By about 12 months, they attain "person permanence" and become aware of others as physical entities distinct from the self. By 2 or 3 years, they acquire a rudimentary sense of others as having inner states (thoughts, perceptions, feelings) independent of their own, although at first they cannot discern exactly what these inner states are. Finally, by late childhood, they become aware of others as having personal identities and life experiences beyond the immediate situation.

As the child progresses through these four cognitive stages, the arousal of empathic affect results in a different experience. I will now describe four levels of empathic response that may result from the coalescence of empathic affect and the cognitive sense of the other, as exemplified by empathizing with another person in distress.

Level 1. For most of the first year, before the child has "person permanence," distress cues from others may elicit a global empathic distress response--a fusion of unpleasant feelings and stimuli that come from the infant's own body and from the dimly perceived "other." Since the infant cannot yet differentiate himself from the other, he may often be unclear as to who is experiencing the distress, and he may at times act as though what is happening to the other is happening to him. An example is an 11-month-old girl who saw another child fall and cry. She first stared at the victim, looking as though she was going to cry herself, and then put her thumb in her

mouth and buried her head in her mother's lap, just what she does when she is hurt.

The transition to the second level begins as the child approaches person permanence. At first, he is probably only vaguely and momentarily aware of the other person as distinct from the self; and the mental image of the other, being transitory, may often slip in and out of focus. Consequently, children at this intermediate stage probably react to another's distress as though the dimly perceived self and the dimly perceived other were somehow simultaneously, or alternately, in distress. An example is a child I know whose typical response to his own distress, beginning late in the first year, was to suck his thumb with one hand and pull his ear with the other. He also did this when he saw someone else in distress, an example of level 1 functioning. Something new happened at 12 months, however. On seeing a sad look on his father's face, he proceeded to look sad and suck his thumb, while pulling on his father's ear! In other words, he was beginning to recognize the difference between self in distress and other in distress, but the distinction was not yet clear.

Level 2. The second level of empathic distress is clearly established when the child is fully aware of the distinction between self and other. He can then, for the first time, be empathically aroused and experience empathic distress while being aware that another person--and not the self--is the victim. The child is still limited, however. He cannot as yet distinguish between his own and the other person's inner states and is apt to mix them up with his own, as illustrated by his efforts to help others. These consist chiefly of giving the other person what he himself finds more comforting. Examples are a 13-month-old who responded with a distressed look to an adult who looked sad, and then offered the adult his

beloved doll. And another child who ran to fetch his own mother to comfort a crying friend, even though the friend's mother was equally available.

Level 3. The third level is manifested when the child becomes aware that other people's feelings are independent of his and based on their own reaction to events. He is then more responsive to cues about what others are feeling. By 3 years, the research shows that children can recognize and respond empathically to happiness or sadness in other children in simple situations. And, with the development of language, they can empathize with a wide range of emotions, sometimes even in the model's absence, which leads to the fourth empathic level.

Level 4. By late childhood, owing to the emerging conception of self and other as continuous persons with separate histories and identities, one is aware that others have feelings beyond the immediate situation. Consequently, though one may continue to be empathically aroused by another's immediate distress, one's empathic concern is intensified when one knows that the other's distress is not transitory but chronic. This fourth stage, then, consists of empathically aroused affect combined with an image of another's general plight (typical level of distress or deprivation). If this image falls short of the observer's standard of well being, an empathic distress response may result even if contradicted by the other's apparent momentary state, that is, the image may override contradictory situational cues.

As an extension of this fourth level, children can eventually be empathically aroused by the plight of an entire group or class of people (e.g., poor, oppressed, outcast, retarded). This may be the most advanced form of empathic distress, and it may provide a motive base for social and political idealogies centered around alleviation of the plight of unfortunate groups.

Sympathetic distress. Thus far, I have suggested that empathic

distress includes an affective component and a component derived from the observer's cognitive sense of the other. There are reasons for expecting that as children progress from the first to the second empathic level, their own empathic distress, which is a parallel response--a more or less exact replication of the victim's actual feelings of distress--may be transformed qualitatively, at least in part, into a more reciprocal feeling of concern and a desire to help the victim, that is, transformed from a "pure" empathic distress into what may be called sympathic distress. (From now on, the term "empathic distress," will be used generically to refer to both empathic and sympathetic distress).

To summarize so far, I have suggested that there are at least six modes of vicarious affect arousal which vary in degree of complexity and type of eliciting stimulus (e.g., the victim's cry, his facial expression, or words depicting his plight). I have also hypothesized that a person's cognitive sense of the other is a fundamental input shaping his vicarious affective response, and that four developmental levels of empathic arousal are the result.

There is another, equally fundamental cognitive influence on how humans respond to people in distress. The burgeoning research on attribution indicates that people of all ages tend to make casual inferences about events. When a person encounters someone in distress, then, we can expect him to make inferences about the cause of the victim's plight. The nature of the inference depends on the cues relevant to causality, and the inferences may then serve as cognitive inputs that provide additional shaping of the observer's affective experience. Thus if the cues signify that the victim is responsible for his own plight, this may neutralize the empathic distress, and the observer may end up feeling indifferent or even derogating the victim. If a

third person is to blame, the observer may feel anger at that person because he sympathizes with the victim or because he empathizes and therefore feels attacked himself. If the observer himself is to blame, then his empathic distress may be transformed by the self-blame attribution into a feeling of guilt. (I am working on a theory of guilt development which there is no time to deal with here). In other words, it is only when something beyond the victim's control caused his distress, like an illness or accident, that my analysis of empathic and sympathetic distress may apply. (Culture can play a role in all of this, of course. If the victim belongs to an outcast group, for example, his misery may be responded to with indifference regardless of the casual attribution).

That completes the cognitive-transformational component of empathy. The motivational component, to which we now turn, refers to the hypothesis that when a person experiences empathic distress he also has a behavioral disposition to do something to relieve the victim's distress. Hence, the relevance of empathy to altruism. I'll now summarize the relevant research. First, naturalistic observations show that 2-3 year-old children typically react empathically to a child who is hurt, although they sometimes do nothing, or act inappropriately like the children in my anecdotes. Older children and adults also react empathically and this is usually followed by appropriate helping behavior. This raises the question of whether empathic distress is necessary for helping to occur. A recent experimental finding by Lieman suggests the answer may be "yes." Children whose facial expressions indicated that they empathized with someone in distress were more likely to make a personal sacrifice to help the victim, than were children who showed no evidence of empathic distress. This finding is important, though it needs

replication because of problems in the scoring of empathy. Finally, the research indicates that the intensity of empathic arousal and the speed of the helping act increase with the number and intensity of distress cues from the victim, and, furthermore, that the level of empathic arousal drops after a person engages in a helping act but remains high if he makes no effort to help.

This package of findings fits neatly with the hypothesis that empathic distress is a positive social motive. The findings are difficult to explain otherwise. Some may call empathic distress an egotistic motive because one feels better after helping. I think that is confusing the outcome with the goal of the action. The evidence suggests that feeling better is usually not a conscious goal of helping (and there is no evidence for an unconscious goal), which is in keeping with my hypothesized transformation of empathic distress into sympathetic distress. Regardless, any motive for which the arousal condition, the aim of ensuing action, and the basis for gratification in the actor are all contingent on someone else's welfare must be distinguished from obvious self-serving motives like approval, success, and material gain. It thus seems legitimate to call empathic distress a positive social motive, with perhaps a quasi-egotistic dimension.

Two qualifications are in order. First, though helping increases with intensity of empathic distress, there is suggestive evidence that beyond a certain point empathic distress may become so aversive that one's attention is directed to the self, not the victim. Thus, the range of intensity within which empathic distress operates as a motive may be limited. Second, empathic distress and helping are positively related to perceived similarity between observer and victim: Children respond more empathically to others of the same race or sex. And adults have been found to empathize

more to others perceived as similar in abstract terms (e.g., similar "personality traits"). These findings suggest that empathic morality may be particularistic, applied mainly to one's group; but they suggest, too, that moral education programs which point up the similarities among people, at the appropriate level of abstraction, may help foster a universalistic morality.

That completes my developmental model for an empathy-based prosocial motive. I assume the model applies under ordinary conditions in most cultures. Though the importance of socialization is not included in the model, certain expectations about socialization seem to follow from it. I'll now summarize them along with the relevant research:

First, we should expect that if the child is allowed the normal run of distress experiences, instead of being shielded from them, this should expand his empathic range. There are two bits of supporting evidence for this: 18-month-old children who have had the experience of seeing adults cry have been found to be more empathic than those who have not had this experience. And preschoolers who cry a lot themselves are more empathic than those who do not cry a lot.

Second, in situations in which the child has harmed others, we would expect that the parent's use of discipline techniques that call attention to the other's pain or injury--that is, inductive techniques--should help put the feelings of others into the child's consciousness and thus enhance his empathic potential. The positive correlation between inductive techniques and helping in older children has long been known. Waxler and Yarrow have recently reported the same thing in children as young as two years.

Third, we would expect role-taking opportunities to help sharpen the child's cognitive sense of the other and thus extend his empathic capability.

Since role-taking is affectively neutral, however, useful in manipulating as well as helping others, role-taking opportunities in positive social contexts should be a more reliable contributor to empathy and helping, than role-taking in competitive or neutral contexts. The research supports this expectation. Role-taking training in prosocial contexts has been found to increase helping behavior in children, and in adults. The research on role-taking measures using neutral or competitive tasks is correlational, and a lack of relation between role-taking and helping has been the usual result.

Finally, we would expect that giving the child a lot of affection would help keep him open to the needs of others and empathic, rather than absorbed in his own needs. And, we would also expect that exposing the child to models who act altruistically and express their sympathetic feelings would contribute to the child's acting empathically rather than make counter-empathic attributions about the cause of people's distress. Both these expectations have been borne out by the research.

It thus appears that empathy and helping may be fostered by relatively benign, nonpunitive socialization experiences. These experiences may be effective because empathy develops naturally, as I suggested, and is to some extent present at an early age. It may thus serve as a potential ally to parents and others with childrearing goals for the child, something to be encouraged and nurtured rather than punished as egoistic motives must sometimes be. And, besides benefitting from the child's existing empathic tendencies, these same socialization experiences may also help enhance the empathic tendencies. In other words, there may be a mutually supportive interaction between naturally developing empathy and these socialization experiences.

I'd like to devote the remaining time to the controversial issue

of whether a motive to help others is a part of human nature. The doctrinaire view in psychology is that it is not. No evidence has ever been adduced for this, perhaps because it seems so obviously true in an individualistic society, and in keeping with Western thought. And of course it is always possible to infer some hidden egoistic motive behind every seemingly altruistic act, even if there is no evidence for an egoistic motive.

I have elsewhere adduced several lines of evidence for the alternative view--that altruism may well be part of human nature. There is only time for a brief summary of 2 or 3 main points. First there is lots of research evidence that most people of all ages try to help others in distress, particularly when no one else is present. One can always say they help for egoistic reasons although one might think that if this were true, people would be more likely rather than less likely to help when other witnesses are present. The only egoistic motive studied in relation to helping is social approval. If people helped for social approval, we would expect a positive correlation between arousal of approval needs and helping. What is found is the opposite: people are <u>less</u> likely to help when approval needs are aroused, and more likely when approval needs are fulfilled. The available evidence so far, then, supports the idea of an altruistic motive independent of egoistic motivation.

In a few studies of bystander response to emergencies, data on speed of helping were obtained. For example, in several studies in which a person appears to have an epileptic fit, or falls and cries out in pain, over 90% of the subjects rushed to help the victim; and the average reaction time was only 5-10 seconds. It is hard to tell how fast this is without a proper standard of comparison. I searched, and I think I found a good one. In the Botswana society in Africa an infant's crying is treated as an emergency to

be responded to as quickly as possible. Konner and Devore report that the average reaction time for the mother to get to a crying baby is 6 seconds. This suggests the 5-10 seconds latency in the research I'm talking about is indeed short. These findings, then, suggest that even in an individualistic society like ours, distress cues from a total stranger can sometimes have an immediate compelling quality. I find it hard to believe this can be explained entirely by culture or socialization. I think it is more compatible with the view that there may be a powerful action tendency or motive in humans that is triggered in appropriate circumstances.

As a final line of evidence, the concepts in modern evolutionary biology--notably "inclusive fitness"--suggest that natural selection requires development of an altruistic response system in humans, along with an egoistic response system. Natural selection also dictates that the altruistic response system has to be reliable, yet also flexible. This suggests that it was not a fixed altruistic response pattern that was selected, but a mediator of altruistic action. Empathy may be that mediator. It appears to fulfill the evolutionary criteria and, as I already noted, the research shows that empathic arousal leads to helping.

Though no one bit of evidence is convincing, the entire package indicates at least the plausibility of an independent altruistic motive that is part of human nature and rooted in the human capacity for empathy.

In conclusion, I would like to say this about empathy. Despite the qualifications I mentioned earlier, any human attribute that can transform a stranger's pain into an innocent bystander's distress demands the continued attention of social scientists, educators, and philosophers too, not only for its relevance to moral development and moral education but also

because it may prove to be the essential connecting link between the individual and society.

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